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## ABSTRACT

There is a common perception that stresses tend to increase and accumulate with age, but there have been no definitive studies of differences in perceived life stress among different age groups. To study these differences, a quasi-random sample of 215 adults completed a 41 item life-stressor questionnaire, modified from the Paykel (1971) and Holmes and Rahe (1967) scales to include new stressors resulting from recent changes in environment, life styles, and family and gender roles. Results showed that with two exceptions (serious illness and moving residences within the same town or nearby) all age groups were statistically different on all the variables as well as the total stress variable, and that this was due to lower stress levels at older ages. Older people may have learned to deal with life stresses in a more constructive manner, or some stresses may not be as operant in older people's lives. The findings disprove the common misperception that growing older and retirement are necessarily negative occurrences. A series of tables is appended which provides information on subjects' occupational status, ethnic composition, educational background, income, and socioeconomic status as well as detailed statistical information on the life stress scores. (JAC)

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# LIFE-STRESSES: DO THEY WAX OR WANE WITH AGE?

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# ABSTRACT

A quasi-random sample of over 200 subjects, including a range of age-groups were administered a life-stressor questionnaire. Results indicated substantial variation exists between age-groups in regard to numerous variables. Both trends and statistically significant differences are discussed. Areas for future inquiry are elaborated and a suggestion is made to administer a life stressor questionnaire to the general population on a yearly basis both for diagnostic and prognostic purposes.

## Introduction

There are two common views of old age. One school maintains that the older a person gets the more stress has been accumulated over time and hence people get progressively more distressed as they get older. The other school of thought, believes that, with age, people learn how to deal with life's many stresses and those that continue to survive are better able to deal with stress than younger people.

Hans Selye (1975) defined stress as the state manifested by a specific syndrome which consists of all the nonspecifically-induced changes within a biological system. There has lately been increased public awareness of the phenomenon and consequences of psychological stress since stress may lead to hypertension, heart attack, depression, high blood pressure, ulcers and other medical problems.

To date there have been no definitive studies of differences in perceived life stress among different age-groups. Do different age groups experience more life stress than others? Do some age groups experience more difficulty in coping with problems such as friction in a work situation, financial problems, unrealized career goals and loss of close friends? Do some age groups such as those in mid-life experience greater stress in problems that affect their families such as hospitalization of family members, or marriage of a child against pa-

rental wishes? Do different age groups experience the same degree of stress in getting mugged or being raped? Do life-stresses become increasingly more stressful with age, less stressful, or are peaks or nadirs reached in middle age? Many of these issues need to be systematically explored.

### Review of Literature

At a meeting of the Badden-Wurtttemberg Society for Social Hygiene held in Stuttgart in November 1978, a paper was presented on "Mental Stress in Old Age Due to Environment and Disease". It was suggested by Muller (1979) that the central control mechanism of man is involved in old age. Mental stress due to deterioration of physical organs and high susceptibility to infectious disease is often found in older persons. It is contended by that author that a vicious circle, stemming from physical wear and typical old age diseases, reduces the elderly person to a helpless state.

Stress has often been linked to anxiety and depression, as psychological correlates or consequences of stress. A hypothesis was proposed by Jarvik and Russell (1979) to account for the low incidence of severe anxiety seen in clinical practice with elderly populations. Severe anxiety, unlike severe depression is not common among the aged. In view of the multitude of stresses accompanying later life and considering the fact that lack of success in mastering stress

typically produces anxiety, one should expect a high frequency of anxiety among the aged. To explain this deficit it was proposed that those who survive into old age have developed strategies to successfully deal with stress. On the other hand, a study by Elkowitz (1979) reports that stress, associated with loss, is believed to be a major part of aging and is closely integrated with the elderly persons ability to adapt. That author concludes that an understanding of the causes of depression in the elderly, an empathetic attitude towards the elderly and an awareness of various modes of treatment are necessary to treat geriatric patients.

Beck (1967) proposed that depression may result from the development of maladaptive attitudes, overreaction to specific stress and the unfortunate occurrences of traumatic events. Allen et al. (1978) investigated the stresses which lead to high rates of depression among low income mothers with young children. Analysis of the data showed that life stress is strongly associated with depression and with other mental health problems. It also showed that ongoing life conditions are more important in predicting depression than are specific recent life events. In addition, studies such as Helsing et al. (1981) have reported higher rates of mortality after widowhood.

Two studies have specifically attempted to examine the relationship between stress and age developmentally. The first

study, conducted by Timmreck et al. (1980), sought to determine whether the relationship between age and stress is operant. Based on a survey of 450 subjects they found that neither stress nor mental pathology increases with aging, although some life periods are more stressful than others and that older people experience different types of life changes than young adults and middle aged subjects. They found that those life changes which older people experience usually involve a loss of a spouse or close family member or an altered financial status. They also found sex differences in stress and mental health status, with women showing greater stress and more neurotic symptoms than men.

The other study, by Sands and Parker (1980), tested adults from different age groups to determine if they differ in their perception of certain life stressful life events. Subjects were asked to rate a series of events according to their perceived relative stressfulness, including events thought to be particularly salient for elderly adults. They used a modification of the Holmes and Rahe's scale (1967) for quantifying stress. Group differences were not found for the elderly salient events. However, it was found that elderly adults perceive death related events as less stressful than do young adults.

### Research on Life Stressors

Attempts have been made to quantify life-stressors. Two studies were conducted by Rahe et al. (1971 a & b) who administered a Schedule of Recent Experience questionnaire developed to assess the presence or absence (as well as temporal occurrence) of 42 life changes in over 2,000 US Navy enlisted men. Four life change clusters were found: personal and social, work, marital and disciplinary. The SRE questionnaire was administered to additional samples of Navy men to investigate the stability of life-change clusters in the new samples. There was an overall consistency in the content of the various clusters.

Karasek et al. (1981) postulated that high correlations between psychological strain and subsequent physiological illness (coronary heart disease) resulted not from an aggregate of "stressors" but from the interaction of two types of job characteristics: the demands of the work situation and the environmental moderators of stress, particularly the range of decision-making freedom available to the worker facing those demands. The authors note that while these constraints also affect executives and professionals, they are much more common in low status jobs. Analysis was based on a large random sample of employed workers in Sweden.

Paykel et al. (1971) sought to scale the degree to which

61 life events were upsetting. This rating scale was derived from a modification of the Holmes & Rahe scale (1967). While the scale used by Paykel, et al. is good, some of the items used were very detailed and somewhat redundant. Items such as "increased arguments with spouse" and "increased arguments with fiancée or steady date" may be collapsed into "friction in a love relationship"; also items such as "change in work hours" and "change in work conditions" may be collapsed into "job frustration".

Furthermore, environment, life styles, family and gender roles have changed considerably since 1971 when this study was first done. Moreover, the sample used to standardize the Paykel et al. Scale of Life Events consisted of psychiatric patients and relatives of patients.

# Method

Sample: The sample included 215 subjects drawn from a number of different sources. Some of the subjects who were enlisted to participate in the study were drawn from a network of friends and associates as well as a substantial number from a randomly selected group of shoppers in a suburban shopping mall in Westchester County, New York. In addition, some of the subjects were drawn from a Senior Citizen Center in the Northeast Bronx. The questionnaires were administered in the early part of 1981 during a two-month period. The average age of the subjects was 38 and the gender of composition was as follows: males, 69 (32%); females, 142 (66%); unknown, 4 (2%).

Table 1      Occupational Status Categories  
(According to US Census Dept. Categorization)

| <u>Occupational Status</u>                                                                                                                |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <u>High Occupational Status</u><br>(professionals, technical & kindred workers and managers, except farm)                                 | 54 (25%)          |
| <u>Middle Occupational Status</u><br>(sales, clerical & kindred workers, craftsmen, foremen & kindred workers, & farmers & farm managers) | 61 (28%)          |
| <u>Low Occupational Status</u><br>(operatives, service workers, laborers, including farm laborers)                                        | 15 (7%)           |
| <u>Residual Occupational Status</u><br>(retired, unemployed, students, and housewives)                                                    | 78 (36%)          |
| <u>Unknown</u>                                                                                                                            | 7 (3%)            |
| <b>TOTAL</b>                                                                                                                              | <b>215 (100%)</b> |

The occupational status of the Ss is reported in Table 1, their ethnic composition is in Table 2, the breakdown of their educational background is in Table 3, the income distribution is cited in Table 4, and the Socioeconomic status is presented in Table 5. Socioeconomic status was operationally defined as follows: if a subjects income was greater than \$30,000 per annum with a high occupational status or high educational background, the subject was classified as having high socioeconomic status (SES). When a subject's income was equal to or less than \$15,000 per annum with little formal education or low occupational status, the subject was categorized as having low SES. All other Ss were deemed middle SES.

#### Procedure

Each subject was administered a mental health stress questionnaire which took approximately 15 - 20 minutes to complete. We constructed a 41 item questionnaire modifying the Paykel (1971) and Holmes & Rahe (1967) scales. We attempted to refine the scale to include what may be new and to alter stressors as a result of these changes. Such items as "abortion", "returning to the job market after several years of absence", "single parenting" and "unemployed for long periods of time" are more reflective of the current social environment. Each stressor was scaled from 1 (being non-stressful) to 5 (being very stressful).

Table 2

Ethnic Composition of the Subjects

| <u>Ethnicity</u>     |            |
|----------------------|------------|
| Black                | 47 (22%)   |
| Hispanic-American    | 10 (5%)    |
| Indian               | 2 (1%)     |
| Caucasian            | 133 (62%)  |
| Other Oriental       | 3 (1%)     |
| Other (non-Oriental) | 15 (7%)    |
| Unknown              | 4 (2%)     |
| TOTAL                | 215 (100%) |

Table 3

Educational Breakdown of Subjects

|                            |            |
|----------------------------|------------|
| Grade School Only          | 7 (3%)     |
| Some High School Education | 20 (9%)    |
| High School Graduate       | 47 (22%)   |
| Some College Education     | 52 (24%)   |
| A.A. Degree                | 12 (6%)    |
| B.A. Degree                | 42 (20%)   |
| M.A. Degree                | 22 (10%)   |
| Ph.D. Degree               | 5 (2%)     |
| M.D. Degree                | 3 (1%)     |
| Post Doctoral Training     | 5 (2%)     |
| TOTAL                      | 215 (100%) |

Table 4

Income Distribution of Subjects

| Per Annum        |            |
|------------------|------------|
| \$5,000 - 10,000 | 17 (8%)    |
| 10,001 - 15,000  | 42 (20%)   |
| 15,001 - 20,000  | 47 (22%)   |
| 20,001 - 30,000  | 35 (16%)   |
| 30,000 +         | 17 (8%)    |
| Unknown          | 57 (27%)   |
| TOTAL            | 215 (100%) |

Table 5

Socioeconomic Status

|            |            |
|------------|------------|
| Low SES    | 42 (20%)   |
| Middle SES | 106 (49%)  |
| High SES   | 10 (5%)    |
| Unknown    | 57 (27%)   |
| TOTAL      | 215 (100%) |

## Results

The following were the number of subjects in each age group: Group No.1, 18-29 years old: 66; Group No.2, 30-39: 48; Group No.3 40-49: 25; Group No.4, 50-59: 13; Group No.5, 60 and over: 59. A Chi square ( $\chi^2$ ) was performed in order to determine whether there were statistically significant differences in the size of the different age groups. The Chi square value was 47.90 which is significant at the .001 level. F-tests were performed to determine whether significant differences exist between age groups with regard to the 41 life stressors and the total life-stressor variable. Results are reported in Table 6. As can be observed, differences with regard to 35 life stressor variables were significant at the .001 level; 3 variables were significantly different at the .01 level; differences in one variable were significant at the .05 level. Only two variables, namely serious illness and moving residences within the same town or nearby were not significantly different between age groups. The total life stressor variable, that is the aggregate of all variables, was statistically significant at the .001 level.

The most stressful variable for all age groups was loss of spouse. By and large the levels of stress tended to decrease with age. Occasionally the age group 30-39 would show slightly higher stress levels than those from 18-29 years of age; however, as age increased results fairly consistently indicated decreases in perceived stress.

Table 6 Comparison of Mean Scores, Standard Deviations &amp; Ranks of the Different Age Groups on Each of the Life-stressor Variables &amp; Total Life-stress

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| LIFE STRESSOR                                                 | 18 - 29   |                |         | 30 - 39   |                |          | 40 - 49   |                |          | 50 - 59   |                |          | 60+       |                |       | F Probab. |
|---------------------------------------------------------------|-----------|----------------|---------|-----------|----------------|----------|-----------|----------------|----------|-----------|----------------|----------|-----------|----------------|-------|-----------|
|                                                               | $\bar{X}$ | Stand. Deviat. | Rank    | $\bar{X}$ | Stand. Deviat. | Rank     | $\bar{X}$ | Stand. Deviat. | Rank     | $\bar{X}$ | Stand. Deviat. | Rank     | $\bar{X}$ | Stand. Deviat. | Rank  |           |
| Loss of spouse (death)                                        | 4.36      | 1.47           | 1       | 4.48      | 1.20           | 1        | 3.84      | 1.65           | 1        | 4.38      | 1.39           | 1        | 3.22      | 2.00           | 1     | 0.0002*** |
| Death of a child                                              | 4.26      | 1.57           | 2       | 4.33      | 1.42           | 3&4      | 3.80      | 2.00           | 2        | 3.62      | 1.80           | 3,4,5,6  | 2.08      | 2.32           | 8     | 0.0000*** |
| Loss of a close friend or relative                            | 4.12      | 1.05           | 3&4     | 3.85      | 1.18           | 6&7      | 3.40      | 1.19           | 5,6,7    | 3.62      | 0.77           | 3,4,5,6  | 2.95      | 1.82           | 3     | 0.0001*** |
| Rape                                                          | 4.12      | 1.63           | 3&4     | 4.44      | 1.18           | 2        | 3.28      | 2.21           | 8        | 3.38      | 2.06           | 8&9      | 1.80      | 2.20           | 14    | 0.0000*** |
| Jail sentence                                                 | 4.00      | 1.64           | 5       | 4.33      | 1.31           | 3&4      | 3.40      | 1.96           | 5,6,7    | 3.85      | 1.82           | 2        | 2.07      | 2.35           | 9&10  | 0.0000*** |
| Getting mugged                                                | 3.89      | 1.40           | 6       | 4.06      | 1.42           | 5        | 3.04      | 1.93           | 11       | 3.23      | 2.05           | 10&11    | 2.22      | 2.31           | 5     | 0.0000*** |
| Birth of handicapped child                                    | 3.77      | 1.53           | 7       | 3.63      | 1.65           | 9&10     | 2.72      | 1.59           | 18&19    | 3.62      | 1.39           | 3,4,5,6  | 1.78      | 2.24           | 15&16 | 0.0000*** |
| Serious illness                                               | 3.70      | 1.30           | 8       | 3.85      | 1.11           | 6&7      | 3.60      | 1.68           | 3        | 3.54      | 1.39           | 7        | 3.20      | 1.95           | 2     | 0.2413    |
| Physical handicap (permanent, contracted after adulthood)     | 3.67      | 1.61           | 9       | 3.54      | 1.56           | 11&12    | 3.40      | 1.85           | 5,6,7    | 2.38      | 1.71           | 22,23,24 | 1.49      | 1.94           | 21&22 | 0.0000*** |
| Unemployed for long period of time (more than three (3) mths) | 3.55      | 1.38           | 10      | 3.33      | 1.45           | 18       | 2.88      | 1.79           | 13,14,15 | 2.85      | 1.82           | 15,16,17 | 1.42      | 1.95           | 25    | 0.0000*** |
| Friction in a love relationship                               | 3.52      | 1.18           | 11      | 3.83      | 1.04           | 8        | 2.84      | 1.49           | 16       | 2.85      | 1.46           | 15,16,17 | 1.93      | 1.84           | 12    | 0.0000*** |
| Unwanted pregnancy                                            | 3.48      | 1.57           | 12      | 3.04      | 1.54           | 21       | 2.08      | 1.73           | 32       | 2.38      | 1.76           | 22,23,24 | 1.27      | 1.75           | 35&36 | 0.0000*** |
| Financial problems                                            | 3.47      | 1.10           | 13      | 3.48      | 1.03           | 13,14,15 | 3.20      | 1.12           | 9&10     | 3.23      | 0.93           | 10&11    | 2.12      | 1.78           | 7     | 0.0000**  |
| Court proceedings (law suit)                                  | 3.44      | 1.33           | 14 & 15 | 3.21      | 1.35           | 19       | 2.96      | 1.57           | 12       | 3.62      | 1.45           | 3,4,5,6  | 2.07      | 2.11           | 9&10  | 0.0000*** |
| Miscarriage or stillbirth                                     | 3.44      | 1.61           | 14 & 15 | 3.63      | 1.41           | 9 & 10   | 2.80      | 1.94           | 17       | 2.69      | 1.65           | 19&20    | 1.53      | 1.96           | 19&20 | 0.0000**  |
| Spouse unfaithful                                             | 3.42      | 1.58           | 16      | 3.46      | 1.38           | 16       | 3.20      | 1.85           | 9 & 10   | 3.00      | 1.87           | 14       | 1.78      | 2.17           | 15&16 | 0.0000*** |

| LIFE STRESSOR                                                   | 18 - 29   |                |       | 30 - 39   |                |          | 40 - 49   |                |                | 50 - 59   |                |          | 60+       |                |          | F Probab.  |
|-----------------------------------------------------------------|-----------|----------------|-------|-----------|----------------|----------|-----------|----------------|----------------|-----------|----------------|----------|-----------|----------------|----------|------------|
|                                                                 | $\bar{X}$ | Stand. Deviat. | Rank  | $\bar{X}$ | Stand. Deviat. | Rank     | $\bar{X}$ | Stand. Deviat. | Rank           | $\bar{X}$ | Stand. Deviat. | Rank     | $\bar{X}$ | Stand. Deviat. | Rank     |            |
| Burglary at home                                                | 3.41      | 1.40           | 17    | 3.48      | 1.35           | 13,14,15 | 2.88      | 1.59           | 13,14,15       | 2.77      | 1.83           | 18       | 1.98      | 2.10           | 11       | 0.0000 *** |
| Abortion                                                        | 3.36      | 1.75           | 18    | 3.35      | 1.47           | 17       | 2.72      | 2.01           | 18&19          | 2.31      | 1.80           | 25       | 1.31      | 1.92           | 31       | 0.0000 *** |
| Divorce                                                         | 3.35      | 1.59           | 19    | 3.54      | 1.64           | 11&12    | 3.44      | 1.96           | 4              | 3.38      | 1.85           | 8&9      | 1.85      | 2.16           | 13       | 0.0000 *** |
| Hospitalization of family member                                | 3.32      | 1.47           | 20    | 2.98      | 1.23           | 23       | 2.68      | 1.57           | 20             | 2.69      | 1.55           | 19&20    | 2.14      | 2.11           | 6        | 0.0026 **  |
| Court appearance for custody and/or divorce proceedings         | 3.27      | 1.49           | 21    | 3.48      | 1.35           | 13,14,15 | 2.88      | 1.76           | 13,14,15       | 3.08      | 1.93           | 12&13    | 1.39      | 1.91           | 27&28    | 0.0000 *** |
| Job frustration (workload, environment, etc.)                   | 3.24      | 1.24           | 22    | 2.88      | 1.21           | 25       | 2.64      | 1.58           | 21             | 2.15      | 1.52           | 26       | 1.64      | 1.85           | 18       | 0.0000 *** |
| Temporary physical handicap                                     | 3.15      | 1.59           | 23    | 2.56      | 1.30           | 30       | 2.20      | 1.61           | 31             | 1.54      | 1.27           | 37       | 1.53      | 1.71           | 19&20    | 0.0000 *** |
| Loss of a job                                                   | 2.94      | 1.55           | 24    | 3.17      | 1.52           | 20       | 2.56      | 1.69           | 22             | 2.54      | 1.56           | 21       | 1.49      | 1.78           | 21&22    | 0.0000 *** |
| Car accident                                                    | 2.92      | 1.35           | 25&26 | 3.00      | 1.11           | 22       | 2.28      | 1.59           | 25,26<br>27,28 | 2.85      | 1.28           | 15,16,17 | 2.24      | 1.95           | 4        | 0.0335 *   |
| Unrealized career goals                                         | 2.92      | 1.30           | 25&26 | 2.54      | 1.24           | 31       | 1.92      | 1.47           | 33&34          | 1.46      | 1.20           | 38&39    | 1.41      | 1.63           | 26       | 0.0000 *** |
| Son drafted                                                     | 2.82      | 1.46           | 27    | 2.92      | 1.56           | 24       | 2.24      | 1.76           | 29&30          | 1.62      | 1.39           | 35&36    | 1.39      | 1.80           | 27&28    | 0.0000 *** |
| Addition to household (invalid or geriatric parent or relative) | 2.76      | 1.31           | 28    | 2.71      | 1.20           | 28       | 2.24      | 1.33           | 29&30          | 3.08      | 1.26           | 12&13    | 1.75      | 1.92           | 17       | 0.0006 **  |
| returning to the job market after several years of absence      | 2.65      | 1.48           | 29    | 2.29      | 1.15           | 33       | 2.28      | 1.37           | 25,26<br>27,28 | 2.00      | 1.68           | 28&29    | 1.14      | 1.40           | 38       | 0.0000 **  |
| Marriage of a child against your wishes                         | 2.56      | 1.28           | 30    | 2.81      | 1.42           | 26       | 2.28      | 1.62           | 25,26<br>27,28 | 2.38      | 1.61           | 22,23,24 | 1.44      | 1.81           | 24       | 0.0001 **  |
| Preparations for marriage                                       | 2.52      | 1.51           | 31    | 2.06      | 1.17           | 38       | 1.88      | 1.39           | 35             | 1.69      | 1.11           | 33&34    | 1.29      | 1.57           | 32,33,34 | 0.0001 **  |
| Single parenting                                                | 2.48      | 1.52           | 32    | 2.77      | 1.21           | 27       | 2.36      | 1.47           | 24             | 2.08      | 1.38           | 27       | 1.12      | 1.66           | 39       | 0.0000 **  |

| LIFE STRESSOR                                                  | 18 - 29   |                |      | 30 - 39   |                |       | 40 - 49   |                |                | 50 - 59   |                |       | 60+       |                |          | F Probab. |
|----------------------------------------------------------------|-----------|----------------|------|-----------|----------------|-------|-----------|----------------|----------------|-----------|----------------|-------|-----------|----------------|----------|-----------|
|                                                                | $\bar{X}$ | Stand. Deviat. | Rank | $\bar{X}$ | Stand. Deviat. | Rank  | $\bar{X}$ | Stand. Deviat. | Rank           | $\bar{X}$ | Stand. Deviat. | Rank  | $\bar{X}$ | Stand. Deviat. | Rank     |           |
| Disciplinary problems with children                            | 2.45      | 1.41           | 33   | 2.38      | 0.94           | 32    | 2.40      | 1.58           | 23             | 1.92      | 1.66           | 30    | 1.46      | 1.48           | 23       | 0.0006 ** |
| Returning to school after several years of absence             | 2.39      | 1.54           | 34   | 2.19      | 1.12           | 37    | 1.92      | 1.32           | 33&34          | 2.00      | 1.53           | 28&29 | 1.06      | 1.15           | 41       | 0.0000 ** |
| Growing old                                                    | 2.33      | 1.56           | 35   | 2.02      | 1.25           | 39    | 1.84      | 1.28           | 36             | 1.31      | 0.95           | 40    | 1.29      | 1.33           | 32,33,34 | 0.0005 ** |
| Relocation to another country                                  | 2.30      | 1.36           | 25   | 2.60      | 1.55           | 29    | 2.28      | 1.72           | 25,26<br>27,28 | 1.62      | 1.26           | 35&36 | 1.27      | 1.72           | 35&36    | 0.0001 ** |
| Dieting to lose weight                                         | 2.26      | 1.56           | 37   | 2.25      | 1.33           | 34    | 1.80      | 1.38           | 37             | 1.77      | 1.54           | 32    | 1.32      | 1.53           | 30       | 0.0042 ** |
| Change in work conditions (new boss, new location, new duties) | 2.18      | 1.11           | 38   | 2.21      | 1.15           | 35&36 | 1.76      | 1.09           | 38&39          | 1.85      | 1.41           | 31    | 1.34      | 1.45           | 29       | 0.0012 ** |
| Relocation to another state                                    | 2.15      | 1.24           | 39   | 2.21      | 1.37           | 35&36 | 1.76      | 1.33           | 38&39          | 1.46      | 1.20           | 38&39 | 1.24      | 1.48           | 37       | 0.0007 ** |
| Retirement                                                     | 1.95      | 1.25           | 40   | 1.58      | 0.90           | 41    | 1.64      | 1.44           | 40             | 1.08      | 0.95           | 41    | 1.02      | 1.15           | 40       | 0.0001 ** |
| Moving residence within same town or nearby                    | 1.65      | 1.09           | 41   | 1.75      | 1.19           | 40    | 1.52      | 1.12           | 41             | 1.69      | 1.03           | 33&34 | 1.29      | 1.64           | 32,33,34 | 0.3887    |
| Total Stress                                                   | 127.58    | 36.61          |      | 126.23    | 28.43          |       | 106.84    | 48.96          |                | 104.54    | 40.57          |       | 69.07     | 55.37          |          | 0.0000 ** |
| * $p < .05$                                                    |           |                |      |           |                |       |           |                |                |           |                |       |           |                |          |           |
| ** $p < .01$                                                   |           |                |      |           |                |       |           |                |                |           |                |       |           |                |          |           |
| *** $p < .001$                                                 |           |                |      |           |                |       |           |                |                |           |                |       |           |                |          |           |

### Discussion

It was rather striking that, with the exception of two variables, all age groups were statistically different on all the variables and the total stress variable and that this was due to lower stress levels at the higher ages. Despite the common perception that stresses tend to increase and accumulate with age, our results indicated the contrary. Perhaps as people get older they learn to deal better with life's stresses. It could also be that those that survive to an older age are those who have learned to deal with life stresses in a more constructive manner. While the older people in the sample may have experienced some of the life stressors such as retirement, loss of spouse, serious illness and growing old they seem to not perceive these as stressful as the way that younger subjects perceive these life stressors. On the other hand, some of the life stressors may not be as applicable to older people as they would be to younger people. For example, unwanted pregnancies, abortion, miscarriage and other variables may not be operant in older people's lives and hence older people may have forgotten how stressful some of these life stressors may be. The common misperception that growing older and retirement are such negative occurrences in one's life has clearly been disproven by the study at hand.

With regard to the sample itself, it was clear that there was significant difference in the size of the different age groups. Future studies should try to obtain larger representation from middle-age subjects, although this is not always possible. There seemed to be fairly uniform distribution of occupational status in our sample. Concerning the income of subjects, it is very difficult to assess income within a sample. Subjects are often reluctant to disclose income to strangers and this is further complicated by the fact that even once one ascertains the income of the subject, it is not always clear how many people are dependent upon a given income. In addition, depending upon the situation and circumstances that a person may be in, it is often difficult to assess how far that income will go. Hence, the socioeconomic status of the subjects was operationally defined in terms of the income, education and occupational status. Nonetheless, it is very difficult, if not impossible to assign socioeconomic status to a subject. For example, a graduate student or a medical student may have very small income, and yet most likely that person will have a higher socioeconomic status upon completion of his or her education.

As in the case of many studies which utilize volunteers, one may not feel confident that the sample used is entirely random since it consists of volunteers who may be very different from the population at large. Attempts were made by this research team to obtain results from subjects who would otherwise not participate in a study. But it is very difficult to recruit subjects

who are not willing to spend the time to complete a questionnaire. Based on this study, it might be helpful to sensitize people of some of the fears and realities that people may experience e.g., loss of spouse, loss of close friends and serious illness.

One form of treatment other than psychotherapy that is reported as the most positive and successful was peer support and role modeling. Whitfield (1978) suggests tht people should be encouraged to seek out peers for support and role modeling. She feels that self-help groups provide a more organized form of support and a frame of reference within which the individual problems may be understood. Such peer groups may be particularly appropriate to discuss things such as unwanted pregnancies and how to deal with getting mugged. Kaplan and Glenn (1978) state that peer support and exchange of ideas is identified as the main source of positive results in their discussion groups on stress.

Many of the subjects informally indicated to the interviewers that they found the questionnaire very helpful in identifying sources of stress in their lives. It might be very helpful, as suggested by Baskin and Simari (1980) to administer a stress questionnaire to individuals each year and to scale the questionnaire such that if a person has reported more than a certain number of stressors (or certain kinds of stressors), some form of psychotherapy or peer group support be suggested.

Future research in this field should also attempt to compare living environments i.e., rural versus suburban versus urban

locales in order to determine what the effects are of life in the metropolis as opposed to rural living. Many people assume that living in the city is much more stressful than living in the country, but this should be systematically examined. It might be worthwhile to administer a modification of this scale to children to learn what types of stressors exist in their lives, and how to best alleviate them once they are identified. Such a procedure might help to learn what fears children have.

Last, but not least, it should be mentioned that the older people in this sample were very receptive to participation in the study. Many were eager to share anecdotes with the interviewers and one subject amusedly responded to the question about stress regarding rape, "why should I be concerned about that at my age"? Most of all, the older subjects appreciated the attention they received from the interviewers. In retrospect the involvement of these subjects was invaluable in dispelling ubiquitous myths about aging.

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